PUBLIC WORKS
CITY OF DURHAM

NOTICE OF VIOLATION

July 14, 2022

David Grenoble
Brenntag Southeast, Inc.
2000 E. Pettigrew St.
Durham, NC 27703

Location of violation: 2000 E. Pettigrew St., Durham

Dear Mr. Grenoble,

You are required to correct a violation of the City's Stormwater Management and Pollution Control Ordinance (the "Ordinance") found during a Stormwater Investigation (Reference #22WQ133) of your operation. The investigation was conducted by Christine Cailleret and Blaine Lary on 6/21/2022, as allowed by Ordinance §70-525.

You have been identified as a party responsible for the operation. According to the Ordinance, responsibility includes the ability to control what occurs on property through ownership of the property or through ownership, control, or management of a business, organization, or other entity whose activities occur on property, and also as provided in § 70-539(c). Violations of the Ordinance may be committed through deliberate action, negligence, omission, or inattention.

Violations and Corrective Actions

Below is a description of the violation, required corrective actions, and the deadlines for correction. Also listed is the proposed civil penalty. A *proposed* civil penalty is the amount that you will be penalized *if you take no action.* The proposed amount may be decreased or suspended if the corrective actions are completed as required.

Each violation is a separate offense. Each day a violation *continues* may be a separate offense.

Violation	Corrective Action	Deadline	Proposed Penalty
Illicit Discharge: Failure to contain the discharge of a solid, liquid, or gas, other than stormwater either directly or indirectly to the drainage system. (Durham City Code Article 5, Division 2, § 70-511(a) & (b))	See additional comments for corrective action.	See additional comments.	$3,500.00

Comments & Requirements

The City of Durham Water Quality Unit has collected evidence documenting an unauthorized non-stormwater discharge originating from 2000 E Pettigrew St., Durham. This property is owned by Brenntag Southeast, Inc. The below description and attached map and photographs relay this evidence.

During the course of routine monitoring in Burton Park on 6/21/2022, Water Quality staff observed stream water that was black in color and had low dissolved oxygen, elevated specific conductance, and a decaying odor. This flow was traced upstream to the southwest corner of the Brenntag property, where black-colored water with low dissolved oxygen, elevated conductivity, and a strong odor was observed to be flowing from multiple outfalls draining the Brenntag premises. (See the attached maps for more detailed descriptions of the observations and the layout of the investigated outfalls.) All outfalls checked between Burton Park and Brenntag were dry, indicating no other actual source of the non-stormwater discharge.

On 6/22/2022, Water Quality staff again observed discharge with the above characteristics flowing from outfalls on the southwest corner of the Brenntag property, reaching further downstream to the tributary running through Burton Park.

Staff also inspected the drainage system upstream of Brenntag. A stormwater drop inlet on the northeast corner of the Brenntag property was observed to be dry. A stormwater drop inlet on the Northwest corner of the Brenntag property was observed to have clear flow with normal levels of dissolved oxygen and conductivity. With no irregular flow upstream of Brenntag, the evidence supports a finding that the non-stormwater discharge originates somewhere within the Brenntag premises.

The conditions of the receiving tributary downstream of Brenntag Southeast are markedly different than any other Durham stream. The stream bed has a thick black precipitate lining it. There is black floc suspended in the water column. The water itself is black in color. These conditions are not present upstream of Brenntag Southeast.

The City is requiring multiple corrective actions aimed at eliminating this illicit discharge and remediating the impacts it has had downstream.

1. Due to the complex and serious nature of this illicit discharge, we require that Brenntag Southeast, Inc. schedule a meeting with Water Quality to review all evidence and requirements. **Contact the lead investigator within 10 business days of receipt of this Notice**

to schedule (7/28/2022).

2. **Within 10 business days of receipt of this Notice (7/28/2022)**, all discharge from the Brenntag Southeast outfalls must be contained, collected, and disposed of or treated offsite until such time as the source(s) of the non-stormwater discharge is identified and fully repaired.
3. **Within 30 business days of receipt of this Notice (8/25/2022)**, complete an investigation and identify the cause or source(s) of the non-stormwater discharge from the Brenntag Southeast property. Send a report of investigation results to stormwaterquality@durhamnc.gov.
4. **Within 30 business days of receipt of this Notice (8/25/2022)**, investigate and prepare a report documenting the extent of the downstream color, floc, and precipitate impacts described above.
5. **Within 30 business days of receipt of this Notice (8/25/2022)**, perform a stream water color analysis of Third Fork Creek at Forest Hills Park. This will serve as the stream color and clarity benchmark that must be met in remediation of the tributary downstream of Brenntag Southeast.
6. **Within 90 business days of receipt of this Notice (11/22/2022)**, develop a plan for remediation of the tributary downstream of Brenntag Southeast, stretching from Brenntag's outfalls through the full extent of the impact (as determined above in #4), but no farther than the confluence with Rock Creek. This remediation plan must, at a minimum, restore conditions in the water column and stream bed. This plan must have a timeline for implementation, which will be reviewed by the City. Upon review, the City may require alterations in the timeline or adopt it unchanged into a new Notice.

Potential Penalties and Remedies

City Ordinance § 70-540(2) states that first-time violators are subject to *base* penalty amounts for each violation up to: $500 for residential use properties, $2,000 for non-residential use, and $10,000 for NPDES facilities. After the first offense, violators may be subject to increased penalties.

To determine the amount of a penalty, the City considers factors such as harm to the environment and property, duration, and the cost of reversing the damage. Also considered are: money saved through noncompliance, prior knowledge of requirements, prior violations, actions taken to remediate impacts, and actions taken to prevent future violations. These factors may result in an increase or decrease of the base penalty for a violation.

The City may also use the administrative remedies in § 70-540(1) as well as the judicial actions in § 70-540(3) such as injunction, abatement, or prosecution as a criminal misdemeanor. In situations where water or sewer service may contribute to a violation, utility services may be terminated.

The City will issue you an additional written Notice if citing one or more violations, or if assessing a civil penalty, terminating utility service, or using any other remedy.

In situations where there is an unreasonable delay in compliance, an emergency, or a public nuisance, the City may take actions to remediate a violation (see § 70-542.) Under those circumstances, the City may bill the violator or lien the remediation costs against the property.

Request a Meeting or Provide Information

If you'd like to meet to discuss or present evidence about your responsibility, the violation(s), corrective

action(s), civil penalties, or other remedies, you may request a meeting with Stormwater & GIS Services. Meeting requests must be made within ten business days of receipt of this Notice. Requests may be made to the Stormwater Investigator either orally or in writing delivered either by hand or by mail.

Hand-delivery:
Christine Cailleret
Re: 22WQ133
Stormwater & GIS Services
Durham City Hall, 3rd Floor

Mail:
Christine Cailleret
Re: 22WQ133
City of Durham Dept. of Public Works
Stormwater & GIS Services
101 City Hall Plaza
Durham, NC 27701

If sent by mail or delivery service, the request should be post-marked within ten days of your receipt of this Notice. Call the Principal Investigator (see signature) to confirm that your request was received. The meeting time will be scheduled according to staff availability.

Alternatively, within ten business days of receipt of this Notice, you may provide Stormwater & GIS Services with evidence in a written format. If sent by mail or delivery service (same delivery methods as above), information must be postmarked within ten days of receiving of this Notice. Call the Principal Investigator to confirm receipt of your mailing.

Contact Stormwater & GIS Services

You are encouraged to contact staff promptly to discuss the required BMPs. Contact the lead Stormwater Investigator (see signature).

An electronic copy of the City of Durham Stormwater Management and Pollution Control Ordinance, Chapter 70 Article V, can be found online at http://goo.gl/zE7wY

For a print copy of or questions about the Ordinance, please contact a Water Quality Staff Member at (919) 560-4326.

Respectfully,

Christine Cailleret

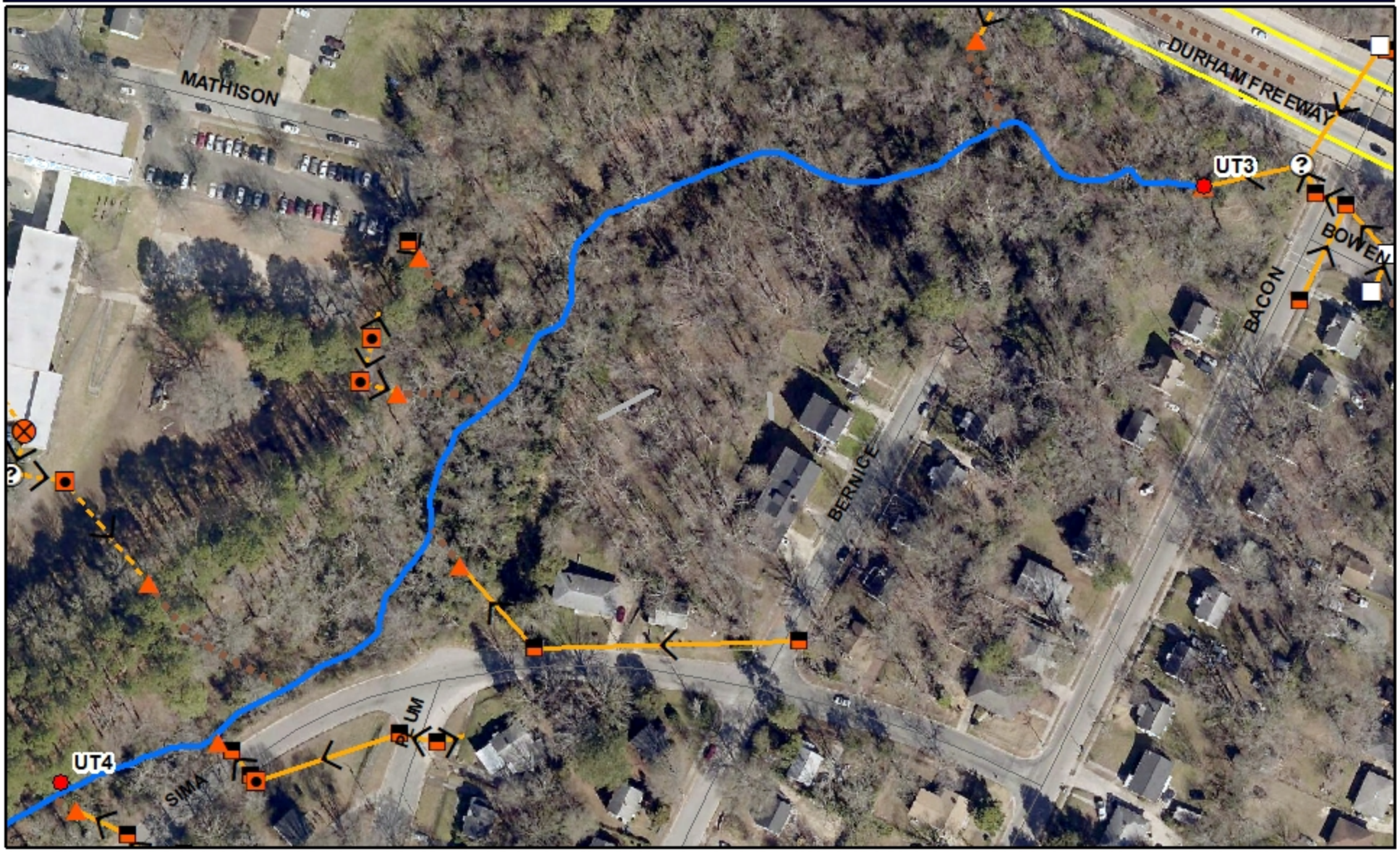
Christine Cailleret (Jul 13, 2022 15:44 EDT)

Christine Cailleret
EP&C Coordinator
919-560-4326 x30276
Christine.Cailleret@durhamnc.gov

Michelle Woolfolk

Michelle Woolfolk
Water Quality Manager
Michelle.Woolfolk@durhamnc.gov

Sime Ave. Investigation Area



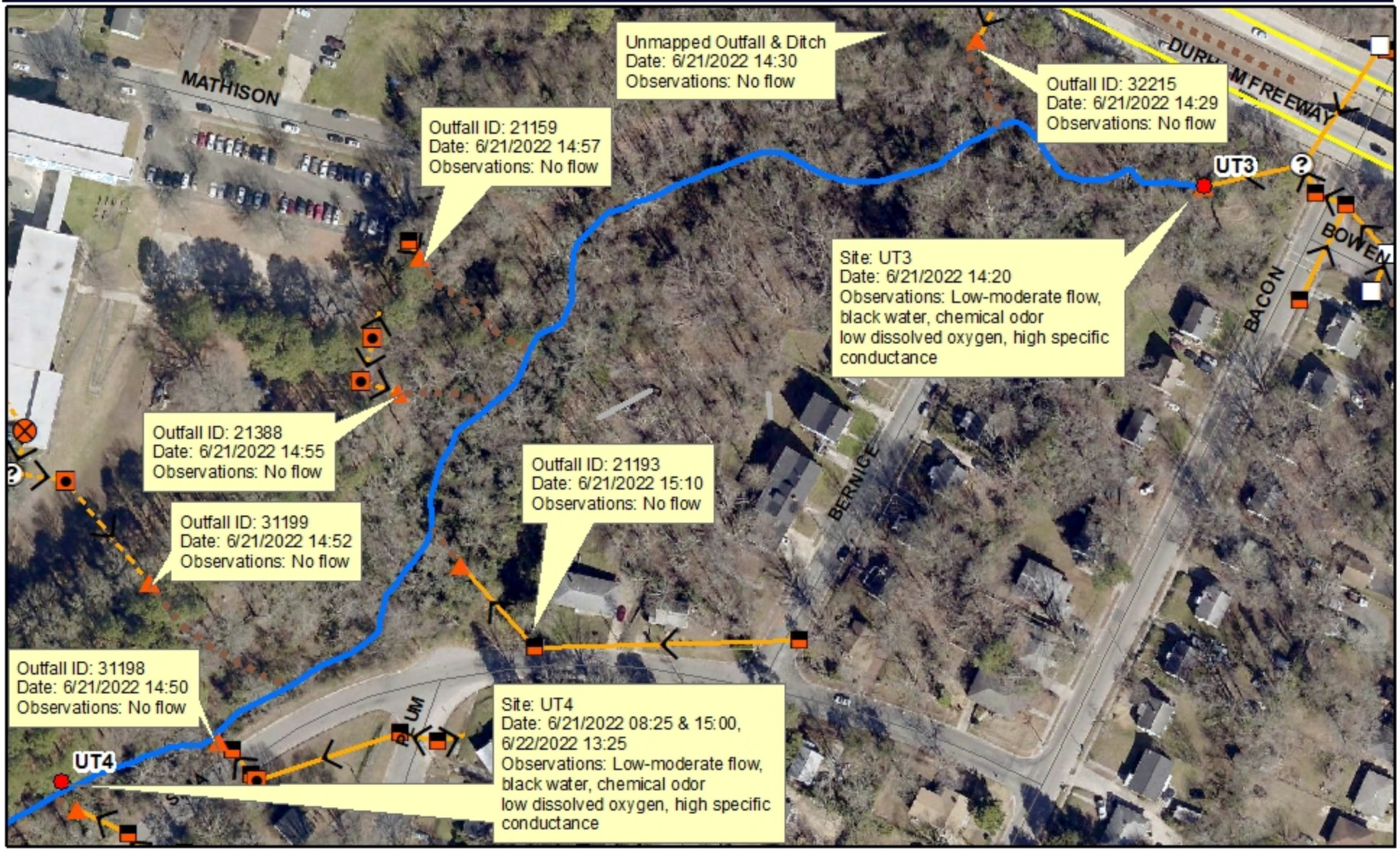
CITY OF DURHAM

Map prepared by Stormwater & GIS Services, Department of Public Works on June 30, 2022. Information depicted is for reference purposes only and is compiled from the best available sources. The City of Durham/Durham County assumes no responsibilityfor errors arising from use or misuse of this map.

N

0 130 260 Ft

Sime Ave. Investigation Area



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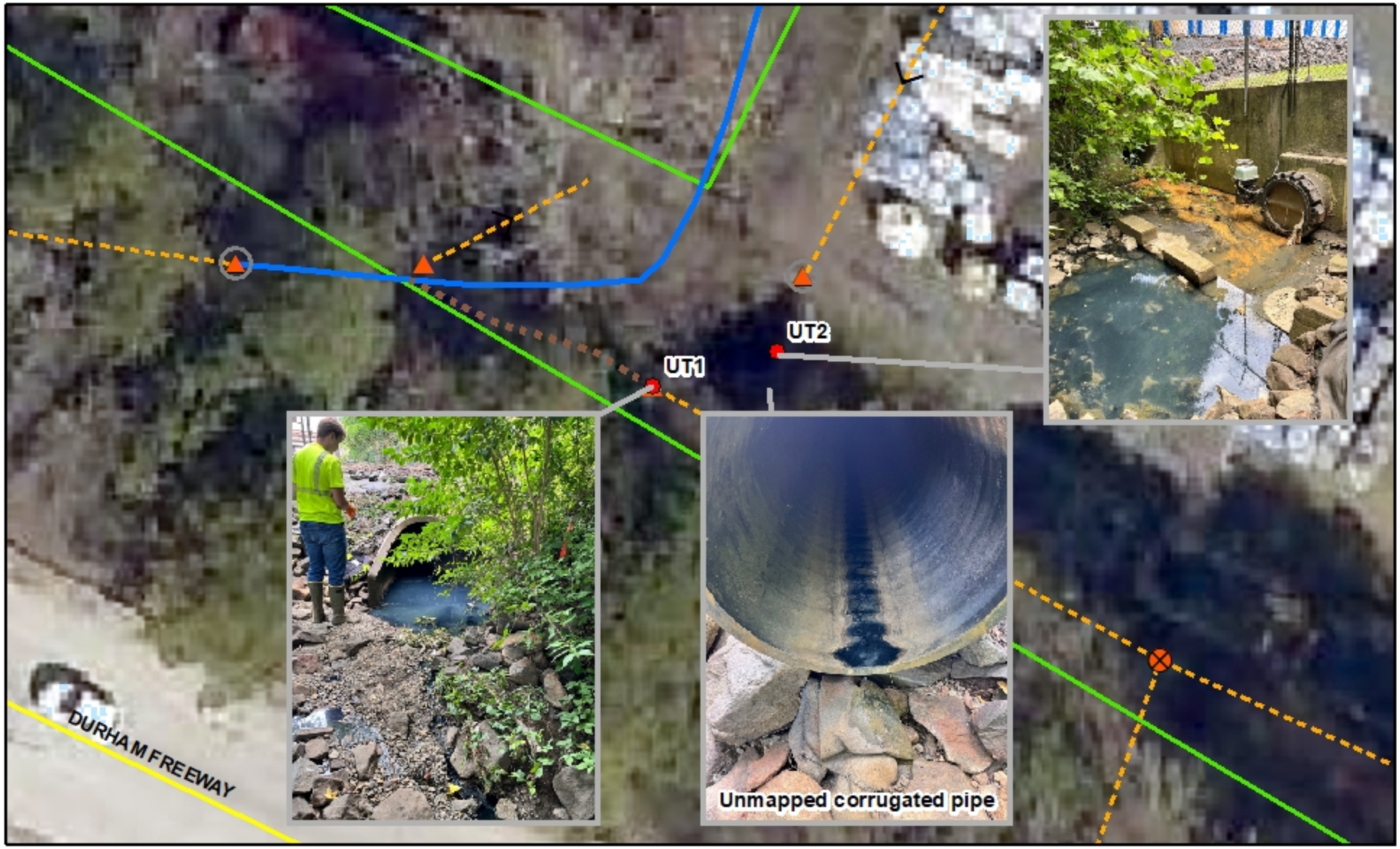
N

0 130 260 Ft

Southwest Corner of Brenntag Mid-South Property



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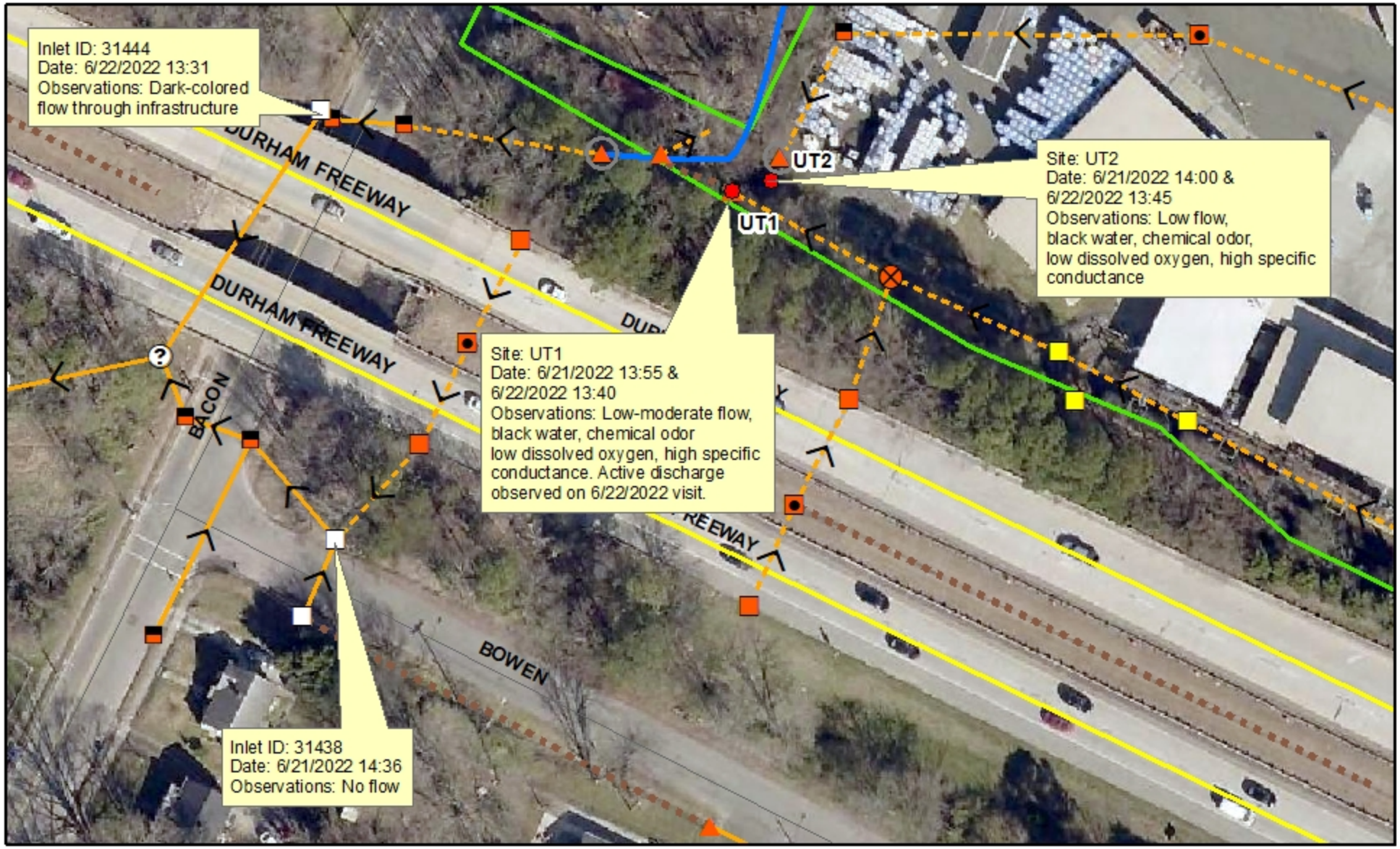
0 20 40 Ft

Drainage System Observations near Bacon St. & Durham Freeway 147



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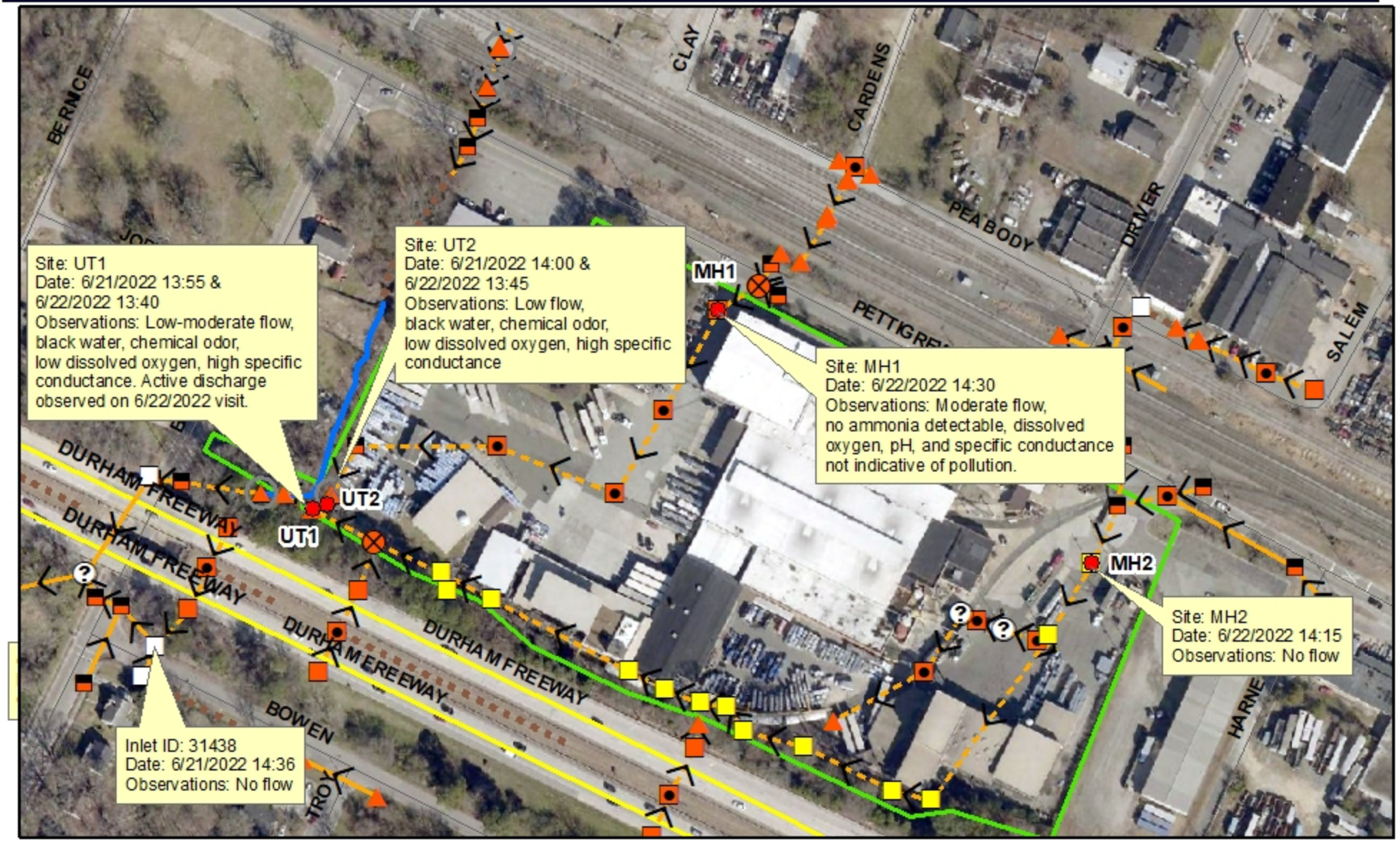
N

0 62.5 125 Ft

Brenntag Mid-South Drainage System



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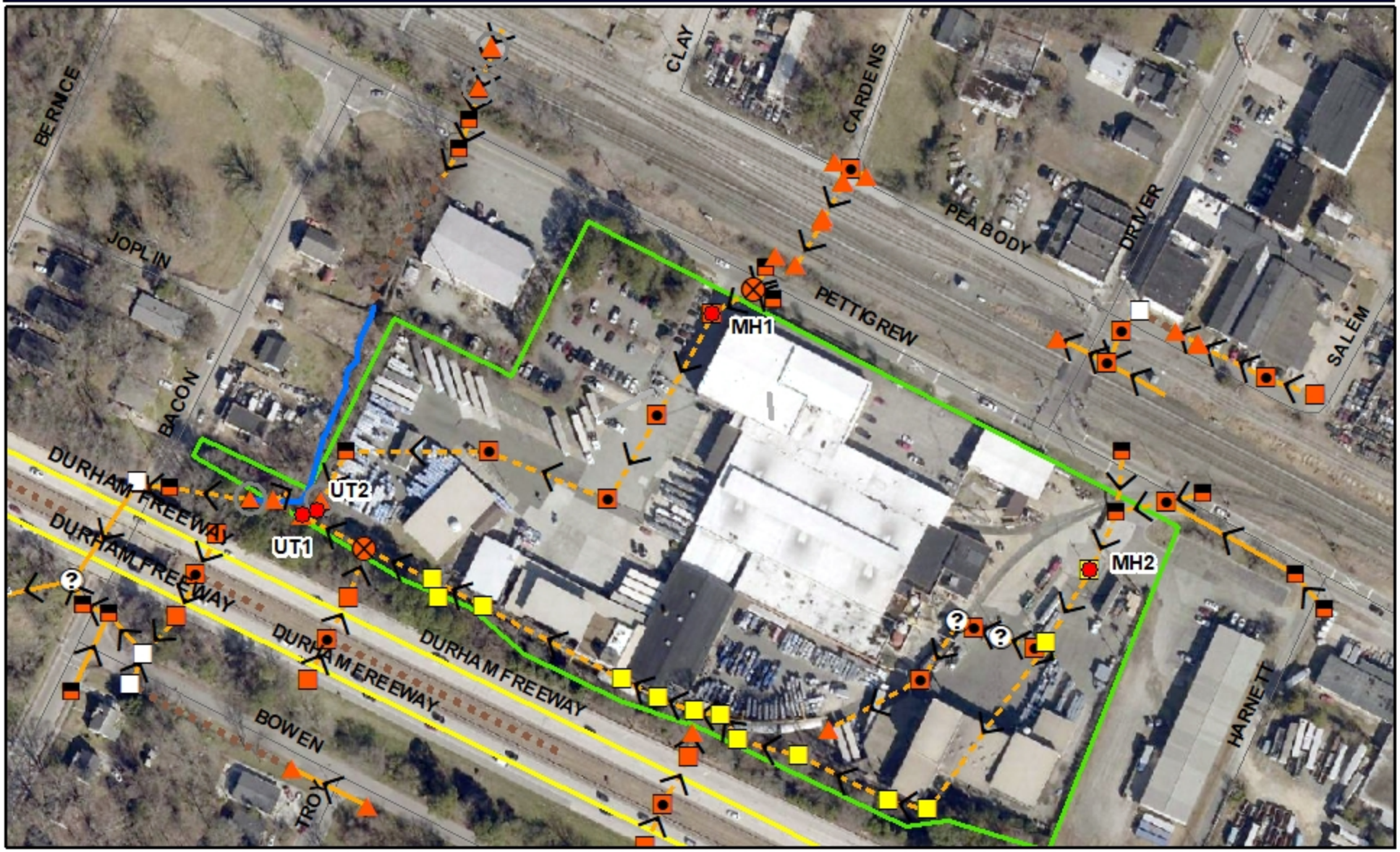
N

0 155 310 Ft

Brenntag Mid-South Drainage System



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N

0 155 310 Ft

ENCO Laboratories
Accurate. Timely. Responsive. Innovative.

102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Thursday, June 30, 2022
City of Durham (CI020)
Attn: Joseph Smith
101 City Hall Plaza, 3rd Floor
Durham, NC 27701

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: Sima Ave Ambient
ENCO Workorder(s): CF09337

Dear Joseph Smith,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, June 21, 2022.

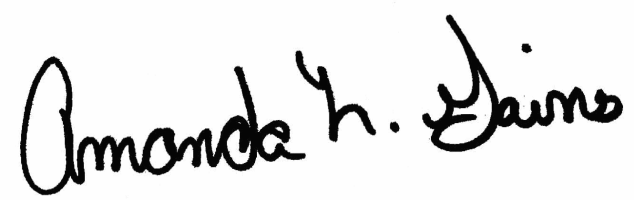
Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Amanda L. Gaines

Project Manager

Enclosure(s)

PROJECT NARRATIVE

Client: City of Durham (CI020)
Project: Sima Ave Ambient
Lab ID: CF09337

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

The samples were brought to ENCO in containers that were not preserved accordong to method recommended requirements. Laboratory personnel poured off samples into containers and preserved accordong to the method requirements. The DOC was filtered in the lab, which is also not according to method recommended requirements. The client was informed before ENCO preoceeded with anlyses.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Amanda Gaines
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: UT-1 **Lab ID: CF09337-01** **Sampled: 06/21/22 13:55** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)				Prep Date/Time(s)		Analysis Date/Time(s)
Colilert 18	NO PREP	06/21/22	21:50	06/22/22	15:09	06/21/22	17:05	06/22/22 11:20
EPA 300.0	NO PREP	07/19/22				06/22/22	15:38	06/22/22 20:05
EPA 350.1	NO PREP	07/19/22				06/28/22	14:48	06/29/22 12:10
EPA 351.2	Same	07/19/22				06/27/22	10:20	06/28/22 11:00
EPA 353.2	NO PREP	07/19/22				06/27/22	08:50	06/27/22 14:10
EPA 365.4	Same	07/19/22				06/27/22	10:27	06/28/22 11:53
SM 5210 B-2011	NO PREP	06/23/22	13:55			06/23/22	09:26	06/23/22 09:26
SM 5220D-2011	Same	07/19/22				06/23/22	10:15	06/23/22 14:05

Client ID: UT-1 **Lab ID: CF09337-01RE1** **Sampled: 06/21/22 13:55** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
SM 5310B-2011	NO PREP	07/19/22	06/27/22	08:15	06/27/22 22:52

Client ID: UT-2 **Lab ID: CF09337-02** **Sampled: 06/21/22 14:00** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)				Prep Date/Time(s)		Analysis Date/Time(s)
Colilert 18	NO PREP	06/21/22	21:55	06/22/22	15:09	06/21/22	17:05	06/22/22 11:20
EPA 300.0	NO PREP	07/19/22				06/22/22	15:38	06/22/22 20:19
EPA 350.1	NO PREP	07/19/22				06/28/22	14:48	06/29/22 12:12
EPA 351.2	Same	07/19/22				06/27/22	10:20	06/28/22 11:02
EPA 353.2	NO PREP	07/19/22				06/27/22	08:50	06/27/22 14:11
EPA 365.4	Same	07/19/22				06/27/22	10:27	06/28/22 11:54
SM 5210 B-2011	NO PREP	06/23/22	14:00			06/23/22	09:26	06/23/22 09:26
SM 5220D-2011	Same	07/19/22				06/23/22	10:15	06/23/22 14:05

Client ID: UT-2 **Lab ID: CF09337-02RE1** **Sampled: 06/21/22 14:00** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
SM 5310B-2011	NO PREP	07/19/22	06/27/22	08:15	06/27/22 23:14

Client ID: UT-3 **Lab ID: CF09337-03** **Sampled: 06/21/22 14:20** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)				Prep Date/Time(s)		Analysis Date/Time(s)
EPA 300.0	NO PREP	07/19/22				06/22/22	15:38	06/22/22 20:34
EPA 350.1	NO PREP	07/19/22				06/28/22	14:48	06/29/22 12:13
EPA 351.2	Same	07/19/22				06/27/22	10:20	06/28/22 11:04
EPA 353.2	NO PREP	07/19/22				06/27/22	08:50	06/27/22 14:14
EPA 365.4	Same	07/19/22				06/27/22	10:27	06/28/22 11:56
SM 5210 B-2011	NO PREP	06/23/22	14:20			06/23/22	09:26	06/23/22 09:26
SM 5220D-2011	Same	07/19/22				06/23/22	10:15	06/23/22 14:05

Client ID: UT-3 **Lab ID: CF09337-03RE1** **Sampled: 06/21/22 14:20** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)		Analysis Date/Time(s)
SM 5310B-2011	NO PREP	07/19/22	06/27/22	08:15	06/27/22 23:36

Client ID: UT-3 **Lab ID: CF09337-03RE2** **Sampled: 06/21/22 14:20** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)				Prep Date/Time(s)		Analysis Date/Time(s)
Colilert 18	NO PREP	06/21/22	22:15	06/22/22	15:09	06/21/22	17:05	06/22/22 11:20

Client ID: UT-4 **Lab ID: CF09337-04** **Sampled: 06/21/22 15:00** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)				Prep Date/Time(s)		Analysis Date/Time(s)
EPA 300.0	NO PREP	07/19/22				06/22/22	15:38	06/22/22 20:48
EPA 350.1	NO PREP	07/19/22				06/28/22	14:48	06/29/22 12:15
EPA 351.2	Same	07/19/22				06/27/22	10:20	06/28/22 11:05
EPA 353.2	NO PREP	07/19/22				06/27/22	08:50	06/27/22 14:15
SM 5210 B-2011	NO PREP	06/23/22	15:00			06/23/22	09:26	06/23/22 09:26
SM 5220D-2011	Same	07/19/22				06/23/22	10:15	06/23/22 14:05

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: UT-4 **Lab ID: CF09337-04RE1** **Sampled: 06/21/22 15:00** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
EPA 365.4	Same	07/19/22	06/27/22 10:27	06/28/22 12:51
SM 5310B-2011	NO PREP	07/19/22	06/27/22 08:15	06/27/22 23:58

Client ID: UT-4 **Lab ID: CF09337-04RE2** **Sampled: 06/21/22 15:00** **Received: 06/21/22 16:16**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
Colilert 18	NO PREP	06/21/22 22:55 06/22/22 15:09	06/21/22 17:05	06/22/22 11:20

SAMPLE DETECTION SUMMARY

Client ID: UT-1 **Lab ID: CF09337-01**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Ammonia as N	0.16		0.045	0.10	mg/L	EPA 350.1	
Biochemical Oxygen Demand	750		2.0	2.0	mg/L	SM 5210 B-2011	B-02
Chemical Oxygen Demand	1400		20	20	mg/L	SM 5220D-2011	
Coliform, Fecal	550		1.0	1.0	MPN/100 mL	Colilert 18	
Nitrate/Nitrite as N	0.19		0.041	0.10	mg/L	EPA 353.2	
Phosphorus - Total	0.53		0.025	0.10	mg/L	EPA 365.4	
Sulfate as SO4	17		2.9	5.0	mg/L	EPA 300.0	
Total Kjeldahl Nitrogen	24		0.26	0.48	mg/L	EPA 351.2	

Client ID: UT-1 **Lab ID: CF09337-01RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Total Organic Carbon - Dissolved	330	D	18	20	mg/L	SM 5310B-2011	

Client ID: UT-2 **Lab ID: CF09337-02**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Biochemical Oxygen Demand	38		2.0	2.0	mg/L	SM 5210 B-2011	
Chemical Oxygen Demand	110		10	10	mg/L	SM 5220D-2011	
Coliform, Fecal	1700		1.0	1.0	MPN/100 mL	Colilert 18	
Nitrate/Nitrite as N	0.61		0.041	0.10	mg/L	EPA 353.2	
Phosphorus - Total	0.86		0.025	0.10	mg/L	EPA 365.4	
Sulfate as SO4	18		2.9	5.0	mg/L	EPA 300.0	
Total Kjeldahl Nitrogen	1.8		0.26	0.48	mg/L	EPA 351.2	

Client ID: UT-2 **Lab ID: CF09337-02RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Total Organic Carbon - Dissolved	17		0.90	1.0	mg/L	SM 5310B-2011	

Client ID: UT-3 **Lab ID: CF09337-03**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Ammonia as N	0.096	J	0.045	0.10	mg/L	EPA 350.1	
Biochemical Oxygen Demand	760		2.0	2.0	mg/L	SM 5210 B-2011	
Chemical Oxygen Demand	770		10	10	mg/L	SM 5220D-2011	
Nitrate/Nitrite as N	0.095	J	0.041	0.10	mg/L	EPA 353.2	
Phosphorus - Total	2.8		0.025	0.10	mg/L	EPA 365.4	
Sulfate as SO4	4.6	J	2.9	5.0	mg/L	EPA 300.0	
Total Kjeldahl Nitrogen	15		0.26	0.48	mg/L	EPA 351.2	

Client ID: UT-3 **Lab ID: CF09337-03RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Total Organic Carbon - Dissolved	160	D	9.0	10	mg/L	SM 5310B-2011	

Client ID: UT-3 **Lab ID: CF09337-03RE2**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Coliform, Fecal	17000		100	100	MPN/100 mL	Colilert 18	

Client ID: UT-4 **Lab ID: CF09337-04**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Biochemical Oxygen Demand	410		2.0	2.0	mg/L	SM 5210 B-2011	
Chemical Oxygen Demand	610		10	10	mg/L	SM 5220D-2011	
Nitrate/Nitrite as N	0.12		0.041	0.10	mg/L	EPA 353.2	
Sulfate as SO4	3.2	J	2.9	5.0	mg/L	EPA 300.0	
Total Kjeldahl Nitrogen	7.1		0.26	0.48	mg/L	EPA 351.2	

Client ID: UT-4 **Lab ID: CF09337-04RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Phosphorus - Total	4.1	D	0.050	0.20	mg/L	EPA 365.4	
Total Organic Carbon - Dissolved	130	D	9.0	10	mg/L	SM 5310B-2011	

Client ID: UT-4 **Lab ID: CF09337-04RE2**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Coliform, Fecal	22000		100	100	MPN/100 mL	Colilert 18	

ANALYTICAL RESULTS

Description: UT-1 **Lab Sample ID:** CF09337-01 **Received:** 06/21/22 16:16
Matrix: Surface Water **Sampled:** 06/21/22 13:55 **Work Order:** CF09337
Project: Sima Ave Ambient **Sampled By:** Christine Cailleret

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7]^	**0.16**		mg/L	1	0.045	0.10	2F28021	EPA 350.1	06/29/22 12:10	MSE	
Biochemical Oxygen Demand^	**750**		mg/L	1	2.0	2.0	2F23005	SM 5210 B-2011	06/23/22 09:26	JOC	B-02
Chemical Oxygen Demand^	**1400**		mg/L	2	20	20	2F23006	SM 5220D-2011	06/23/22 14:05	JOC	
Nitrate/Nitrite as N^	**0.19**		mg/L	1	0.041	0.10	2F27005	EPA 353.2	06/27/22 14:10	MSE	
Phosphorus [7723-14-0]^	**0.53**		mg/L	1	0.025	0.10	2F27015	EPA 365.4	06/28/22 11:53	MSE	
Sulfate as SO4 [14808-79-8]^	**17**		mg/L	1	2.9	5.0	2F22021	EPA 300.0	06/22/22 20:05	CB	
Total Kjeldahl Nitrogen^	**24**		mg/L	1	0.26	0.48	2F27012	EPA 351.2	06/28/22 11:00	MSE	

Microbiological Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Coliform, Fecal^	**550**		MPN/100 mL	1		1.0	2F30026	Colilert 18	06/22/22 11:20	MJY	

Classical Chemistry Parameters (Dissolved)

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Total Organic Carbon^	**330**	D	mg/L	20	18	20	2F27011	SM 5310B-2011	06/27/22 22:52	KG	

Description: UT-2 **Lab Sample ID:** CF09337-02 **Received:** 06/21/22 16:16
Matrix: Surface Water **Sampled:** 06/21/22 14:00 **Work Order:** CF09337
Project: Sima Ave Ambient **Sampled By:** Christine Cailleret

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7]^	0.045	U	mg/L	1	0.045	0.10	2F28021	EPA 350.1	06/29/22 12:12	MSE	
Biochemical Oxygen Demand^	**38**		mg/L	1	2.0	2.0	2F23005	SM 5210 B-2011	06/23/22 09:26	JOC	
Chemical Oxygen Demand^	**110**		mg/L	1	10	10	2F23006	SM 5220D-2011	06/23/22 14:05	JOC	
Nitrate/Nitrite as N^	**0.61**		mg/L	1	0.041	0.10	2F27005	EPA 353.2	06/27/22 14:11	MSE	
Phosphorus [7723-14-0]^	**0.86**		mg/L	1	0.025	0.10	2F27015	EPA 365.4	06/28/22 11:54	MSE	
Sulfate as SO4 [14808-79-8]^	**18**		mg/L	1	2.9	5.0	2F22021	EPA 300.0	06/22/22 20:19	CB	
Total Kjeldahl Nitrogen^	**1.8**		mg/L	1	0.26	0.48	2F27012	EPA 351.2	06/28/22 11:02	MSE	

Microbiological Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Coliform, Fecal^	**1700**		MPN/100 mL	1		1.0	2F30026	Colilert 18	06/22/22 11:20	MJY	

Classical Chemistry Parameters (Dissolved)

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Total Organic Carbon^	**17**		mg/L	1	0.90	1.0	2F27011	SM 5310B-2011	06/27/22 23:14	KG	

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ANALYTICAL RESULTS

Description: UT-3 **Lab Sample ID:** CF09337-03 **Received:** 06/21/22 16:16
Matrix: Surface Water **Sampled:** 06/21/22 14:20 **Work Order:** CF09337
Project: Sima Ave Ambient **Sampled By:** Christine Cailleret

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7]^	**0.096**	J	mg/L	1	0.045	0.10	2F28021	EPA 350.1	06/29/22 12:13	MSE	
Biochemical Oxygen Demand^	**760**		mg/L	1	2.0	2.0	2F23005	SM 5210 B-2011	06/23/22 09:26	JOC	
Chemical Oxygen Demand^	**770**		mg/L	1	10	10	2F23006	SM 5220D-2011	06/23/22 14:05	JOC	
Nitrate/Nitrite as N^	**0.095**	J	mg/L	1	0.041	0.10	2F27005	EPA 353.2	06/27/22 14:14	MSE	
Phosphorus [7723-14-0]^	**2.8**		mg/L	1	0.025	0.10	2F27015	EPA 365.4	06/28/22 11:56	MSE	
Sulfate as SO4 [14808-79-8]^	**4.6**	J	mg/L	1	2.9	5.0	2F22021	EPA 300.0	06/22/22 20:34	CB	
Total Kjeldahl Nitrogen^	**15**		mg/L	1	0.26	0.48	2F27012	EPA 351.2	06/28/22 11:04	MSE	

Microbiological Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Coliform, Fecal^	**17000**		MPN/100 mL	100		100	2F30026	Colilert 18	06/22/22 11:20	MJY	

Classical Chemistry Parameters (Dissolved)

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Total Organic Carbon^	**160**	D	mg/L	10	9.0	10	2F27011	SM 5310B-2011	06/27/22 23:36	KG	

Description: UT-4 **Lab Sample ID:** CF09337-04 **Received:** 06/21/22 16:16
Matrix: Surface Water **Sampled:** 06/21/22 15:00 **Work Order:** CF09337
Project: Sima Ave Ambient **Sampled By:** Christine Cailleret

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7]^	0.045	U	mg/L	1	0.045	0.10	2F28021	EPA 350.1	06/29/22 12:15	MSE	
Biochemical Oxygen Demand^	**410**		mg/L	1	2.0	2.0	2F23005	SM 5210 B-2011	06/23/22 09:26	JOC	
Chemical Oxygen Demand^	**610**		mg/L	1	10	10	2F23006	SM 5220D-2011	06/23/22 14:05	JOC	
Nitrate/Nitrite as N^	**0.12**		mg/L	1	0.041	0.10	2F27005	EPA 353.2	06/27/22 14:15	MSE	
Phosphorus [7723-14-0]^	**4.1**	D	mg/L	2	0.050	0.20	2F27015	EPA 365.4	06/28/22 12:51	MSE	
Sulfate as SO4 [14808-79-8]^	**3.2**	J	mg/L	1	2.9	5.0	2F22021	EPA 300.0	06/22/22 20:48	CB	
Total Kjeldahl Nitrogen^	**7.1**		mg/L	1	0.26	0.48	2F27012	EPA 351.2	06/28/22 11:05	MSE	

Microbiological Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Coliform, Fecal^	**22000**		MPN/100 mL	100		100	2F30026	Colilert 18	06/22/22 11:20	MJY	

Classical Chemistry Parameters (Dissolved)

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Total Organic Carbon^	**130**	D	mg/L	10	9.0	10	2F27011	SM 5310B-2011	06/27/22 23:58	KG	

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F22021 - NO PREP

Blank (2F22021-BLK1) Prepared: 06/22/2022 15:38 Analyzed: 06/22/2022 17:11

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	2.9	U	5.0	mg/L							

LCS (2F22021-BS1) Prepared: 06/22/2022 15:38 Analyzed: 06/23/2022 10:37

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	49		5.0	mg/L	50.0		98	90-110			

Matrix Spike (2F22021-MS1) Prepared: 06/22/2022 15:38 Analyzed: 06/22/2022 17:55

Source: CF01145-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	32		5.0	mg/L	20.0	9.8	109	90-110			

Matrix Spike (2F22021-MS2) Prepared: 06/22/2022 15:38 Analyzed: 06/22/2022 18:38

Source: CF01145-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	61		5.0	mg/L	20.0	39	110	90-110			

Matrix Spike Dup (2F22021-MSD1) Prepared: 06/22/2022 15:38 Analyzed: 06/22/2022 18:09

Source: CF01145-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	32		5.0	mg/L	20.0	9.8	109	90-110	0.3	10	

Batch 2F23005 - NO PREP

Blank (2F23005-BLK1) Prepared & Analyzed: 06/23/2022 09:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2.0	U	2.0	mg/L							

LCS (2F23005-BS1) Prepared & Analyzed: 06/23/2022 09:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	200		2.0	mg/L	198		101	85-115			

Duplicate (2F23005-DUP1) Prepared & Analyzed: 06/23/2022 09:26

Source: CF06134-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	5.0		2.0	mg/L		4.9			2	30	

Batch 2F23006 - Same

Blank (2F23006-BLK1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	10	U	10	mg/L							

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F23006 - Same - Continued

LCS (2F23006-BS1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	500		10	mg/L	500		100	90-110			

Matrix Spike (2F23006-MS1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Source: CF01145-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	530		10	mg/L	526	10 U	102	90-110			

Matrix Spike Dup (2F23006-MSD1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Source: CF01145-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	540		10	mg/L	526	10 U	102	90-110	0.8	5	

Batch 2F27005 - NO PREP

Blank (2F27005-BLK1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 12:14

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.041	U	0.10	mg/L							

LCS (2F27005-BS1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:35

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.2		0.10	mg/L	1.25		98	90-110			

Matrix Spike (2F27005-MS1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:39

Source: CF06148-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.87		0.10	mg/L	0.521	0.30	109	90-110			

Matrix Spike (2F27005-MS2) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:44

Source: CF06148-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	8.3	D	0.50	mg/L	2.60	5.5	107	90-110			

Matrix Spike Dup (2F27005-MSD1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:41

Source: CF06148-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.88		0.10	mg/L	0.521	0.30	111	90-110	1	10	QM-07

Batch 2F27012 - Same

Blank (2F27012-BLK1) Prepared: 06/27/2022 10:20 Analyzed: 06/28/2022 10:19

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	0.26	U	0.48	mg/L							

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F27012 - Same - Continued

LCS (2F27012-BS1) Prepared: 06/27/2022 10:20 Analyzed: 06/28/2022 10:21

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	11		0.48	mg/L	12.0		95	90-110			

Matrix Spike (2F27012-MS1) Prepared: 06/27/2022 10:20 Analyzed: 06/28/2022 10:24

Source: CF04750-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	5.1		0.48	mg/L	4.80	0.82	88	90-110			QM-07

Matrix Spike (2F27012-MS2) Prepared: 06/27/2022 10:20 Analyzed: 06/28/2022 10:29

Source: CF06193-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	77	E	0.48	mg/L	4.80	77	NR	90-110			QM-07

Matrix Spike Dup (2F27012-MSD1) Prepared: 06/27/2022 10:20 Analyzed: 06/28/2022 10:26

Source: CF04750-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	5.6		0.48	mg/L	4.80	0.82	99	90-110	10	10	

Batch 2F27015 - Same

Blank (2F27015-BLK1) Prepared: 06/27/2022 10:27 Analyzed: 06/28/2022 11:33

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	0.025	U	0.10	mg/L							

LCS (2F27015-BS1) Prepared: 06/27/2022 10:27 Analyzed: 06/28/2022 11:34

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.6		0.10	mg/L	1.60		103	80-120			

Matrix Spike (2F27015-MS1) Prepared: 06/27/2022 10:27 Analyzed: 06/28/2022 11:37

Source: CF04750-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	0.65		0.10	mg/L	0.640	0.025 U	102	80-120			

Matrix Spike Dup (2F27015-MSD1) Prepared: 06/27/2022 10:27 Analyzed: 06/28/2022 11:38

Source: CF04750-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	0.66		0.10	mg/L	0.640	0.025 U	103	80-120	1	25	

Batch 2F28021 - NO PREP

Blank (2F28021-BLK1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:32

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	0.045	U	0.10	mg/L							

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F28021 - NO PREP - Continued

LCS (2F28021-BS1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:34

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	0.97		0.10	mg/L	1.01		96	90-110			

Matrix Spike (2F28021-MS1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:37

Source: CF08096-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	13	D	1.0	mg/L	3.93	9.2	106	90-110			

Matrix Spike (2F28021-MS2) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:46

Source: CF08096-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	25	DE	1.0	mg/L	3.93	22	80	90-110			QM-07

Matrix Spike Dup (2F28021-MSD1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:39

Source: CF08096-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	13	D	1.0	mg/L	3.93	9.2	106	90-110	0.2	10	

Microbiological Parameters - Quality Control

Batch 2F30026 - NO PREP

Blank (2F30026-BLK1) Prepared: 06/21/2022 17:05 Analyzed: 06/22/2022 11:20

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Coliform, Fecal	1.0	U	1.0	MPN/100 mL							

Duplicate (2F30026-DUP1) Prepared: 06/21/2022 17:05 Analyzed: 06/22/2022 11:20

Source: CF09337-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Coliform, Fecal	>2419.6		1.0	MPN/100 mL		1700			33	25	QM-12

Classical Chemistry Parameters (Dissolved) - Quality Control

Batch 2F27011 - NO PREP

Blank (2F27011-BLK1) Prepared: 06/27/2022 08:15 Analyzed: 06/27/2022 19:25

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	0.90	U	1.0	mg/L							

LCS (2F27011-BS1) Prepared: 06/27/2022 08:15 Analyzed: 06/27/2022 20:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	45		1.0	mg/L	50.0		90	85-115			

Matrix Spike (2F27011-MS1) Prepared: 06/27/2022 08:15 Analyzed: 06/28/2022 00:41

Source: CF09337-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL DATA

Classical Chemistry Parameters (Dissolved) - Quality Control

Batch 2F27011 - NO PREP - Continued

Matrix Spike (2F27011-MS1) Continued Prepared: 06/27/2022 08:15 Analyzed: 06/28/2022 00:41

Source: CF09337-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	62		1.0	mg/L	50.0	17	91	85-115			

Matrix Spike Dup (2F27011-MSD1) Prepared: 06/27/2022 08:15 Analyzed: 06/28/2022 01:05

Source: CF09337-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	62		1.0	mg/L	50.0	17	89	85-115	1	15	

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.
B-02	The sample dilutions set up for the analysis failed to meet the criteria of a residual dissolved oxygen of at least 1 mg/l. Therefore the reported result is an estimated value only.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM-12	Precision between duplicate samples was outside acceptance limits.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Client Name: Joey Smith	Project Number:
Address: 101 City Hall Plaza	Project Name/Desc:
City/ST/Zip: Durham, NC 27701	PO # / Billing Info:
Tel: 919-560-4326 Fax:	Reporting Contact:
Sampler(s) Name, Affiliation (Print): Christine Cailleret	Billing Contact:
Sampler(s) Signature: Christine Cailleret	Site Location / Time Zone:

Requested Analyses: BOD-5; COD; Sulfate; Nutrients (TKN, NH_3, NO_3, TP); DOC; Fecal Coliform; E. Coli

Preservation (See Codes) (Combine as necessary)

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard
✓ Expedited
Due ___/___/___

Lab Workorder: CF09337

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Sample Comments
	UT-1	6/21/22	*1355	G	SW		
	UT-2	6/21/22	*1400	G	SW		
	UT-3	6/21/22	*1420	G	SW		
	UT-4	6/21/22	*1500	G	SW		

<-- Total # of Containers

Sample Kit Prepared By / Date/Time	Relinquished By: Christine Cailleret / Date/Time: 6/21/22 1616	Received By: Hana B / Date/Time: 6/21/22 1616	
Comments/Special Reporting Requirements: Times from bottles for 6/21/22	Relinquished By / Date/Time	Received By / Date/Time	
	Relinquished By / Date/Time	Received By / Date/Time	
	Cooler #'s & Temps on Receipt: 1.8°C	Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix: GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

Sample Preservation Verification

ENCO Cary

Work Order:	CF09337	Project:	Sima Ave Ambient
Client:	City of Durham (CI020)	Project #:	[none]
Logged In:	21-Jun-22 16:29	Logged By:	Samantha L Hyatt
Preservation Check Performed By:	SB	Date/Time:	6/21/22 1645

CF09337-01

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
E	250mLP+H2SO4	<2	(Y) / N / NA	Y / (N) / NA		

CF09337-02

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
E	250mLP+H2SO4	<2	(Y) / N / NA	Y / (N) / NA		

CF09337-03

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
E	250mLP+H2SO4	<2	(Y) / N / NA	Y / (N) / NA		

CF09337-04

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
D	250mLP+H2SO4	<2	(Y) / N / NA	Y / (N) / NA		

	Reagent Name	ID		Reagent Name	ID		Reagent Name	ID
1			3			5		
2			4			6		

pH Strip ID: C2A0640

ENCO Laboratories
Accurate. Timely. Responsive. Innovative.

102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

Tuesday, July 5, 2022
City of Durham (CI020)
Attn: Joseph Smith
101 City Hall Plaza, 3rd Floor
Durham, NC 27701

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: Sima Ave Ambient
ENCO Workorder(s): CF09452

Dear Joseph Smith,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Wednesday, June 22, 2022.

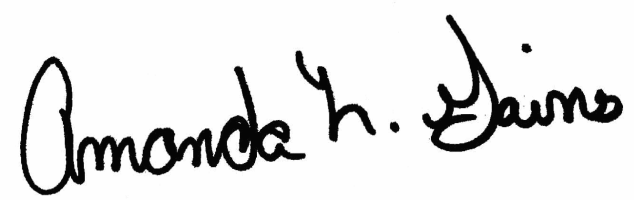
Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative if applicable. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,



Amanda L. Gaines

Project Manager

Enclosure(s)

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PROJECT NARRATIVE

Date: July 05, 2022
Client: City of Durham (CI020)
Project: Sima Ave Ambient
Lab ID: CF09452

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

No Comments

Other Comments

The samples were brought to ENCO in containers that were not preserved accordong to method recommended requirements. Laboratory personnel poured off samples into containers and preserved accordong to the method requirements. The DOC was filtered in the lab, which is also not according to method recommended requirements. The client was informed before ENCO preoceeded with anlyses.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Amanda Gaines
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MH-1 **Lab ID: CF09452-01** **Sampled: 06/22/22 14:30** **Received: 06/22/22 15:43**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
Colilert 18	NO PREP	06/22/22 22:25 06/23/22 14:47	06/22/22 16:43	06/23/22 11:24
EPA 300.0	NO PREP	07/20/22	06/24/22 09:55	06/24/22 15:07
EPA 350.1	NO PREP	07/20/22	06/28/22 14:48	06/29/22 12:20
EPA 351.2	Same	07/20/22	06/29/22 10:26	06/30/22 11:38
EPA 353.2	NO PREP	07/20/22	06/27/22 08:50	06/27/22 14:17
EPA 365.4	Same	07/20/22	06/29/22 10:33	06/30/22 12:37
SM 5210 B-2011	NO PREP	06/24/22 14:30	06/23/22 09:26	06/23/22 09:26
SM 5220D-2011	Same	07/20/22	06/23/22 10:15	06/23/22 14:05

Client ID: MH-1 **Lab ID: CF09452-01RE1** **Sampled: 06/22/22 14:30** **Received: 06/22/22 15:43**

Parameter	Preparation	Hold Date/Time(s)	Prep Date/Time(s)	Analysis Date/Time(s)
SM 5310B-2011	NO PREP	07/20/22	06/27/22 08:10	06/27/22 16:14

SAMPLE DETECTION SUMMARY

Client ID: MH-1 **Lab ID:** CF09452-01

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Biochemical Oxygen Demand	2.5		2.0	2.0	mg/L	SM 5210 B-2011	
Coliform, Fecal	130		1.0	1.0	MPN/100 mL	Colilert 18	
Nitrate/Nitrite as N	0.60		0.041	0.10	mg/L	EPA 353.2	
Phosphorus - Total	0.032	J	0.025	0.10	mg/L	EPA 365.4	
Sulfate as SO4	11		2.9	5.0	mg/L	EPA 300.0	

Client ID: MH-1 **Lab ID:** CF09452-01RE1

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Total Organic Carbon - Dissolved	3.9		0.90	1.0	mg/L	SM 5310B-2011	

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ANALYTICAL RESULTS

Description: MH-1 **Lab Sample ID:** CF09452-01 **Received:** 06/22/22 15:43

Matrix: Surface Water **Sampled:** 06/22/22 14:30 **Work Order:** CF09452

Project: Sima Ave Ambient **Sampled By:** Christine Cailleret

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Ammonia as N [7664-41-7]^	0.045	U	mg/L	1	0.045	0.10	2F28021	EPA 350.1	06/29/22 12:20	MSE	
Biochemical Oxygen Demand^	**2.5**		mg/L	1	2.0	2.0	2F23005	SM 5210 B-2011	06/23/22 09:26	JOC	
Chemical Oxygen Demand^	10	U	mg/L	1	10	10	2F23006	SM 5220D-2011	06/23/22 14:05	JOC	
Nitrate/Nitrite as N^	**0.60**		mg/L	1	0.041	0.10	2F27005	EPA 353.2	06/27/22 14:17	MSE	
Phosphorus [7723-14-0]^	**0.032**	J	mg/L	1	0.025	0.10	2F29016	EPA 365.4	06/30/22 12:37	MSE	
Sulfate as SO4 [14808-79-8]^	**11**		mg/L	1	2.9	5.0	2F24013	EPA 300.0	06/24/22 15:07	CB	
Total Kjeldahl Nitrogen^	0.26	U	mg/L	1	0.26	0.48	2F29014	EPA 351.2	06/30/22 11:38	MSE	

Microbiological Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Coliform, Fecal^	**130**		MPN/100 mL	1		1.0	2F27024	Colilert 18	06/23/22 11:24	MJY	

Classical Chemistry Parameters (Dissolved)

^ - ENCO Orlando certified analyte [NC 424]

Analyte [CAS Number]	Results	Flag	Units	DF	MDL	PQL	Batch	Method	Analyzed	By	Notes
Total Organic Carbon^	**3.9**		mg/L	1	0.90	1.0	2F27008	SM 5310B-2011	06/27/22 16:14	KG	

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F23005 - NO PREP

Blank (2F23005-BLK1) Prepared & Analyzed: 06/23/2022 09:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	2.0	U	2.0	mg/L							

LCS (2F23005-BS1) Prepared & Analyzed: 06/23/2022 09:26

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	200		2.0	mg/L	198		101	85-115			

Duplicate (2F23005-DUP1) Prepared & Analyzed: 06/23/2022 09:26

Source: CF06134-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Biochemical Oxygen Demand	5.0		2.0	mg/L		4.9			2	30	

Batch 2F23006 - Same

Blank (2F23006-BLK1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	10	U	10	mg/L							

LCS (2F23006-BS1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	500		10	mg/L	500		100	90-110			

Matrix Spike (2F23006-MS1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Source: CF01145-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	530		10	mg/L	526	10 U	102	90-110			

Matrix Spike Dup (2F23006-MSD1) Prepared: 06/23/2022 10:15 Analyzed: 06/23/2022 14:05

Source: CF01145-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Chemical Oxygen Demand	540		10	mg/L	526	10 U	102	90-110	0.8	5	

Batch 2F24013 - NO PREP

Blank (2F24013-BLK1) Prepared: 06/24/2022 09:55 Analyzed: 06/24/2022 11:59

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	2.9	U	5.0	mg/L							

LCS (2F24013-BS1) Prepared: 06/24/2022 09:55 Analyzed: 06/24/2022 12:13

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	49		5.0	mg/L	50.0		97	90-110			

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F24013 - NO PREP - Continued

Matrix Spike (2F24013-MS1) Prepared: 06/24/2022 09:55 Analyzed: 06/24/2022 12:42

Source: CF08097-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	21		5.0	mg/L	20.0	4.9	79	90-110			QM-07

Matrix Spike (2F24013-MS2) Prepared: 06/24/2022 09:55 Analyzed: 06/24/2022 13:26

Source: CF08097-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	19		5.0	mg/L	20.0	2.9 U	95	90-110			

Matrix Spike Dup (2F24013-MSD1) Prepared: 06/24/2022 09:55 Analyzed: 06/24/2022 12:57

Source: CF08097-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	21		5.0	mg/L	20.0	4.9	79	90-110	0.2	10	QM-07

Batch 2F27005 - NO PREP

Blank (2F27005-BLK1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 12:14

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.041	U	0.10	mg/L							

LCS (2F27005-BS1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:35

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	1.2		0.10	mg/L	1.25		98	90-110			

Matrix Spike (2F27005-MS1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:39

Source: CF06148-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.87		0.10	mg/L	0.521	0.30	109	90-110			

Matrix Spike (2F27005-MS2) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:44

Source: CF06148-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	8.3	D	0.50	mg/L	2.60	5.5	107	90-110			

Matrix Spike Dup (2F27005-MSD1) Prepared: 06/27/2022 08:50 Analyzed: 06/27/2022 13:41

Source: CF06148-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Nitrate/Nitrite as N	0.88		0.10	mg/L	0.521	0.30	111	90-110	1	10	QM-07

Batch 2F28021 - NO PREP

Blank (2F28021-BLK1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:32

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	0.045	U	0.10	mg/L							

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F28021 - NO PREP - Continued

LCS (2F28021-BS1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:34

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	0.97		0.10	mg/L	1.01		96	90-110			

Matrix Spike (2F28021-MS1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:37

Source: CF08096-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	13	D	1.0	mg/L	3.93	9.2	106	90-110			

Matrix Spike (2F28021-MS2) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:46

Source: CF08096-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	25	DE	1.0	mg/L	3.93	22	80	90-110			QM-07

Matrix Spike Dup (2F28021-MSD1) Prepared: 06/28/2022 14:48 Analyzed: 06/29/2022 11:39

Source: CF08096-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Ammonia as N	13	D	1.0	mg/L	3.93	9.2	106	90-110	0.2	10	

Batch 2F29014 - Same

Blank (2F29014-BLK1) Prepared: 06/29/2022 10:26 Analyzed: 06/30/2022 10:34

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	0.26	U	0.48	mg/L							

LCS (2F29014-BS1) Prepared: 06/29/2022 10:26 Analyzed: 06/30/2022 10:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	12		0.48	mg/L	12.0		101	90-110			

Matrix Spike (2F29014-MS1) Prepared: 06/29/2022 10:26 Analyzed: 06/30/2022 10:40

Source: CF08896-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	5.7		0.48	mg/L	4.80	0.52	108	90-110			

Matrix Spike (2F29014-MS2) Prepared: 06/29/2022 10:26 Analyzed: 06/30/2022 10:45

Source: CF08899-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	6.4		0.48	mg/L	4.80	2.1	88	90-110			QM-07

Matrix Spike Dup (2F29014-MSD1) Prepared: 06/29/2022 10:26 Analyzed: 06/30/2022 10:41

Source: CF08896-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Kjeldahl Nitrogen	5.4		0.48	mg/L	4.80	0.52	102	90-110	5	10	

Batch 2F29016 - Same

QUALITY CONTROL DATA

Classical Chemistry Parameters - Quality Control

Batch 2F29016 - Same - Continued

Blank (2F29016-BLK1) Prepared: 06/29/2022 10:33 Analyzed: 06/30/2022 12:15

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	0.025	U	0.10	mg/L							

LCS (2F29016-BS1) Prepared: 06/29/2022 10:33 Analyzed: 06/30/2022 12:17

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	1.6		0.10	mg/L	1.60		101	80-120			

Matrix Spike (2F29016-MS1) Prepared: 06/29/2022 10:33 Analyzed: 06/30/2022 12:20

Source: CF08896-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	2.3		0.10	mg/L	0.640	1.6	115	80-120			

Matrix Spike Dup (2F29016-MSD1) Prepared: 06/29/2022 10:33 Analyzed: 06/30/2022 12:21

Source: CF08896-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Phosphorus	2.2		0.10	mg/L	0.640	1.6	105	80-120	3	25	

Microbiological Parameters - Quality Control

Batch 2F27024 - NO PREP

Blank (2F27024-BLK1) Prepared: 06/22/2022 16:43 Analyzed: 06/23/2022 11:24

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Coliform, Fecal	1.0	U	1.0	MPN/100 mL							

Duplicate (2F27024-DUP1) Prepared: 06/22/2022 14:32 Analyzed: 06/23/2022 11:24

Source: CF08896-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Coliform, Fecal	1.0	U	1.0	MPN/100 mL		1.0 U				25	

Classical Chemistry Parameters (Dissolved) - Quality Control

Batch 2F24004 - NO PREP

Blank (2F24004-BLK1) Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 08:59

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	0.90	U	1.0	mg/L							

LCS (2F24004-BS1) Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 09:36

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	48		1.0	mg/L	50.0		95	85-115			

Matrix Spike (2F24004-MS1) Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 09:58

Source: AF04657-03

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes

QUALITY CONTROL DATA

Classical Chemistry Parameters (Dissolved) - Quality Control

Batch 2F24004 - NO PREP - Continued

Matrix Spike (2F24004-MS1) Continued Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 09:58

Source: AF04657-03

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	53		1.0	mg/L	50.0	6.1	93	85-115			

Matrix Spike (2F24004-MS2) Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 10:48

Source: AF04794-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	49		1.0	mg/L	50.0	1.1	95	85-115			

Matrix Spike Dup (2F24004-MSD1) Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 10:23

Source: AF04657-03

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	47		1.0	mg/L	50.0	6.1	81	85-115	12	15	QM-07

Matrix Spike Dup (2F24004-MSD2) Prepared: 06/24/2022 07:26 Analyzed: 06/24/2022 11:12

Source: AF04794-01

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	49		1.0	mg/L	50.0	1.1	95	85-115	0.3	15	

Batch 2F27008 - NO PREP

Blank (2F27008-BLK1) Prepared: 06/27/2022 08:10 Analyzed: 06/27/2022 08:55

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	0.90	U	1.0	mg/L							

LCS (2F27008-BS1) Prepared: 06/27/2022 08:10 Analyzed: 06/27/2022 09:32

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	46		1.0	mg/L	50.0		93	85-115			

Matrix Spike (2F27008-MS1) Prepared: 06/27/2022 08:10 Analyzed: 06/27/2022 09:56

Source: AF04829-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	52		1.0	mg/L	50.0	6.3	91	85-115			

Matrix Spike (2F27008-MS2) Prepared: 06/27/2022 08:10 Analyzed: 06/27/2022 10:45

Source: AF04437-04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	52		1.0	mg/L	50.0	5.9	93	85-115			

Matrix Spike Dup (2F27008-MSD1) Prepared: 06/27/2022 08:10 Analyzed: 06/27/2022 10:21

Source: AF04829-02

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	48		1.0	mg/L	50.0	6.3	84	85-115	7	15	QM-07

QUALITY CONTROL DATA

Classical Chemistry Parameters (Dissolved) - Quality Control

Batch 2F27008 - NO PREP - Continued

Matrix Spike Dup (2F27008-MSD2) Prepared: 06/27/2022 08:10 Analyzed: 06/27/2022 11:10

Source: AF04437-04

Analyte	Result	Flag	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Total Organic Carbon	52		1.0	mg/L	50.0	5.9	92	85-115	1	15	

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
PQL	PQL: Practical Quantitation Limit. The PQL presented is the laboratory MRL.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence (85% or greater confidence) to make a "tentative identification".
P	Greater than 25% concentration difference was observed between the primary and secondary GC column. The lower concentration is reported.
[CALC]	Calculated analyte - MDL/MRL reported to the highest reporting limit of the component analyses.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

10775 Central Port Dr.
Orlando, FL 32824
(407) 826-5314 Fax (407) 850-6945

4810 Executive Park Court, Suite 111
Jacksonville, FL 32216-6069
(904) 296-3007 Fax (904) 296-6210

102-A Woodwinds Industrial Ct.
Cary, NC 27511
(919) 467-3090 Fax (919) 467-3515

www.encolabs.com

Client Name: City of Durham	Project Number:
Address: 101 City Hall Plaza	Project Name/Desc:
City/ST/Zip: Durham, NC 27701	PO # / Billing Info:
Tel: 919-560-4326 Fax:	Reporting Contact: Joey Smith
Sampler(s) Name, Affiliation (Print): Christine Caillouet	Billing Contact: Joey Smith
Sampler(s) Signature: Christine Caillouet	Site Location / Time Zone:

Requested Analyses

Preservation (See Codes) (Combine as necessary)

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	BOD-5	COD	Nutrients (TKN, NH3, NO2, TP)	DOC	Sulfate	Fecal Coliform	E. Coli				Sample Comments
	MH-1	6/22/22	1430	Grab	SW	4	✓	✓	✓	✓	✓	✓	✓				
						4	<-- Total # of Containers										

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

___ Standard

✓ Expedited

Due ___/___/___

Lab Workorder: CF09452

Sample Kit Prepared By	Date/Time	Relinquished By: Christine Caillouet	Date/Time: 6/22/22 1543	Received By: Rachel L	Date/Time: 6/22/22 1543
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: 3.6°		Condition Upon Receipt: ✓ Acceptable ___ Unacceptable	

M : **GW**-Groundwater **SO**-Soil **DW**-Drinking Water **SE**-Sediment **SW**-Surface Water **WW**-Wastewater **A**-Air **O**-Other (detail in comments)

Preservation: **I**-Ice **H**-HCl **N**-HNO3 **S**-H2SO4 **NO**-NaOH **O**-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist

Sample Preservation Verification

ENCO Cary

Work Order:	CF09452	Project:	Sima Ave Ambient
Client:	City of Durham (CI020)	Project #:	[none]
Logged In:	22-Jun-22 15:45	Logged By:	Rachel Ann Yonish
Preservation Check Performed By:	SB	Date/Time:	6/22/22 1550

CF09452-01

Cont	Type	Pres (pH) Requirement	pH Checked / In Control	pH Adjusted	Date/Time Adjusted	Reagent Used/Comments
B	250mLP+H2SO4	<2	(Y) / N / NA	Y / (N) / NA		

	Reagent Name	ID		Reagent Name	ID		Reagent Name	ID
1			3			5		
2			4			6		

pH Strip ID: PH Strips C2A0640

22WQ133 NOV - Brenntag SE July 2022

Final Audit Report 2022-07-13

Created:	2022-07-13
By:	James Azarelo (James.Azarelo@DurhamNC.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAwsxdGeHDWitp2895iBIFw6GdAK-qqyGL

"22WQ133 NOV - Brenntag SE July 2022" History

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